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## Problems in Ensuring Indian Energy Security Due to Human Capital Crisis – Some Strategies from Indian IT and BPO Industry

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### Summary

Growing economies like India will require a high rate of growth of energy supply. This requires a greater contribution of energy from hydrocarbon sector in order to fulfill the future energy demand. Human capital shortage in the hydrocarbon sector globally, and in particular in the Indian petroleum industry, has the potential to adversely affect the growth of the sector, and in turn the energy production of India. The issue has been discussed with emphasis on Indian oil sector PSU's. HR measures taken by PSU's and Indian IT and BPO industries, which face high rate of attrition and require continuous supply of manpower to grow, have been discussed. Desirable steps for growth of Indian petroleum sector, especially the PSU's, have been recommended.

### Introduction

Indian economy has been growing at rapid rate of about 8% per annum in the recent years. Sustenance of this pace of growth requires increased energy. Various steps have been taken by the Government of India to bridge the gap between demand and supply of energy. This additional energy generation will require more human capital. But, as per current scenario, public sector finds it difficult to retain its skilled workforce due to attrition. Supply of new talent is also not adequate. Therefore public sector has to take steps to retain its existing manpower and attract and develop young employees in order to contribute its share of energy. The importance of human aspect has been studied in the energy sector with emphasis on the Public Sector Undertakings (PSU's) of hydrocarbon sector. Steps taken by Indian IT and BPO industry to reduce attrition were considered and some measures suggested to retain the skilled human capital which are essential to ensure energy security.

### Indian Energy and Hydrocarbon Industry Scene

There exists a huge gap between demand and supply of energy in India. Various steps have been taken by the Government of India to bridge the gap between demand and supply of energy. The steps need efforts of private and

public sector both. Importance of public sector will continue as far as its contribution in the growth of energy supply is concerned. PSU's like ONGC, OIL, IOC, HPCL, NTPC, Nuclear Power Corporation of India and others will be having a significant contribution in energy supply.

Petroleum is an important source of energy in India which accounts for about 39% of India's total energy requirement. This is next only to coal. Petroleum imports account for about 30% of India's import bill. Therefore, Indian hydrocarbon sector has to play a great role in fulfilling energy requirement. Role and objectives of this sector are outlined in existing government policy documents. India has developed a planning framework –India Hydrocarbon Vision-2005 (IHV-2005). The objectives set forth in this document include:

- Developing the sector as a globally competitive industry, ensure healthy competition and improve product standard.
- Ensure energy security keeping in view strategic and defense issues.

Ensuring energy security and development of the hydrocarbon sector as a globally competitive industry can not be achieved without adequate human capital. Due to the high rate of required growth, short supply of young talent and problem of attrition, shortage of manpower is considered a major constraint in ensuring energy security.



The attrition of skilled talent pose a big challenge before Indian petroleum industry. Table-1 shows below the recent trend of resignations by the employees of the public sector as per the study conducted by international consultant Hewit Associates on behalf of oil sector PSU's .

	2004	2005	2006 (9 months)
<b>IOC</b>	46	92	131
<b>BPCL</b>	102	167	195
<b>HPCL</b>	56	90	120
<b>ONGC</b>	50	113	222
<b>OIL</b>	7	7	23
<b>EIL</b>	54	132	189
<b>GAIL</b>	27	32	60
<b>TOTAL</b>	<b>342</b>	<b>633</b>	<b>940</b>

Table-1: No. of voluntary resignations in PSU's (Source-www.indianpetro.com)

These resignations are by the technically skilled personnel like geoscientists, reservoir engineers, downstream sector engineers and drillers etc. This loss of manpower is in favour of Indian private companies and foreign players. The trend is continuing unabated during 2006-07 also. The attrition has inflicted even the power sector company-NTPC, which has been ranked high on HR parameters as per a survey published in an Indian magazine.

The problem has taken an alarming situation in the government owned companies of India because of poaching by Indian private and foreign players due to surge in petroleum activities. Activities in India increased multifold after introduction of auctioning of acreages under New Exploration Licensing Policy(NELP).This has tremendously increased the demand of skill.

## Global Petroleum industry Situation

The shortage of skilled manpower in the hydrocarbon sector is at present a global phenomenon. A research study by Deloitte on US upstream oil & gas sector considers the issue of talent shortage critical in view of the sector's aging workforce combined with the diminishing pipeline of new and experienced talent.

One of the biggest service company- Haliburton considers that shortage of skilled people has the potential to be the single biggest constraint on their industry . Similarly, Kuwait National Oil Company finds skilled labour as one of the main obstacles for Project Kuwait, which sees the countries output increase from 2.7 million to 4 million b/d by 2020. Booze Allen analysis suggests that less than half the oil industry technical staff required in 2012 are

typically working 'for the company' today. A recent article in World Oil says -"No technical challenge can rival the problems that the global upstream industry faces with manpower issues. Industry recruitment and retention affects every operational phase, including costs. In the same article, Senior Vice President-Deepwater Technology, Oceanering International, Inc., Houston finds the problem of 'Poaching' as terrible.

## HR Policies in PSU's , IT and BPO Industries

The current problem of attrition in the Public Sector Undertakings (PSU's) of India has been studied taking information from the available studies on the manpower and Annual Reports of the PSU's. Strategies adopted by the major hydrocarbon sector companies have been compiled and compared with those adopted by the IT sector companies. Based on the experience and studies in the IT sector and its comparison with PSU's some measures have been outlined to alleviate the problem of attrition.

### HR Measures in OIL Sector PSU's

First of all it is required to have a look at the steps being taken by some of the oil sector PSU's to attract and retain talent. Oil sector PSU's including the biggest Indian down stream sector company -IOC, which faced an attrition rate of 1.5% in 2006-07, and ONGC having acute drainage of its skill are taking serious steps to tackle the crisis. Measures being taken by oil sector PSU's are summarized in table-2.

Company	HR Policies adopted/Planned
IOC	Thrust on recruitment, Identification of various drivers for employee engagement, For performance based reward system introduced ePMS, Training & Development, Aligning individual goal aspirations with corporate vision objectives.
ONGC	Enhancement of remuneration/perks, Aggressive recruitment, Thrust on employee welfare, Training & Development, Recruiting of employees who earlier quit the organization.
OIL	Revision of HR policy for long term strategy, Job rotation, Succession plan implementation. 25% extra recruitment in some areas. Training & development.
EIL	Extensive recruitment at Junior and Middle management level, Training & development, Study of Performance Management System for performance based reward System.



Table-2: Measures adopted by PSU's for combating attrition (Source –Annual reports of companies and their websites)

In general, PSU's are thrusting on recruitment, Training and development, Employee welfare and planning for performance based reward system. There is a shift towards understanding employee aspirations and linking it with organizational goals. .

### HR Measures in Indian IT Sector

Indian IT sector has been having an average attrition rate of about 22%. In spite of this higher attrition rate, IT industry managed to grow. Some of the strategies adopted by major IT firms of India are listed below in Table-3.

IT industry finds that money is not everything for employees. A number of IT professionals are looking at more challenging jobs, exposure to new technologies, expansion of their domain capabilities. WIPRO realized that attrition problems were rising due to reasons other than money. An internal survey at WIPRO revealed that most employees left the company because of uncommunicative managers and non-involvement of their immediate seniors.

Company	HR Policies adopted
TCS	Continuously investing in training and development, Competitive Compensation, Creating compelling work environment, Empowering Employee, Well structured reward and recognition mechanism.
WIPRO	Understanding employee's need at various levels, Exposures to newer technologies, well managed succession plan, Respect for the individual, Mentoring, Training & development, Challenging environment
INFOSYS	Employees considered vital, Development support through Personal Development Plan, Mentoring, Action Learning Teams; Strong unifying culture ,Comprehensive long term career option, ESOP.

Table-3: Measures adopted by IT companies for employee retention.

### HR Policies adopted by Indian BPO Industry

Indian BPO industry has been inflicted with high rate of attrition because of because of non acceptability of it as a long term career option, fear of stagnation, offer of higher package by other BPO firms and pursuit of higher studies. A research study by HayGroup concludes that given the

current stage of the BPO industry in the growth cycle, attrition is likely to be a fact of life. Study reveals that high performing companies tend to reward high performers.

A BPO company- Genpact, which finds a place in the list of "The Best companies to work for in India" as per survey by Business Today magazine, has a high employee satisfaction level. It had won "employers of the choice" award due to its commitment to people, both on professional and personnel level. Genpact takes a three pronged approach to people management-hiring, training, and rewarding. The approach aims at three goals:

- Hiring Right
- Training Right
- Rewarding Right

Genpact aims to make the hours at work a fun. It aims to make people connected with the organization and its leadership. This is done by:

- Listening to the people
- Implementing their suggestion
- Measuring the impact

### **Winning Employee Commitment**

Importance of winning employee commitment has also been highlighted in researches. Some of the possible strategies suggested for winning employee commitment in the research studies are:

- Establish organization commitment norm and percolate vertically and horizontally
- Increase organizational dependability and Support
- Provide advancement opportunities.
- Formalization of policy and procedures
- Transparent communication
- Self-expression opportunity
- Fostering mentorship
- Empowerment
- Respecting meritocracy.
- Rejoice together

In Sum, the strategies need to ensure that workers are involved in their job. There should be adequate money and securities for the employee.

### **Conclusions**

India needs to accelerate its energy production in order to ensure energy security for its future GDP growth. Public sector companies of India, especially those belonging to the hydrocarbon sector, are likely to play a significant role for ensuring energy security.



One of the biggest problems faced today by the global petroleum industry is shortage of manpower. The problem is more acute for Indian industry, especially the PSU's of India, because of constraints in paying competitive remunerations to its employees and other HR factors, which lead to attrition.

IT and BPO industries in India have managed to grow despite a very high rate of attrition. Some of the successful strategies adopted by high performing IT and BPO companies may be successful in Indian PSU's.

Strategies for employee retention should include money and other factors for increasing commitment level.

Besides the retention strategies, thrust on recruitment and steps to increase availability of talent with the help of academia and government support are considered important for growing contribution of petroleum sector PSU's towards energy supply.

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